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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/619,709	07/14/2003	Hoa Duc Nguyen		7090		
759	7590 06/16/2006			EXAMINER		
HIGH STANDARD PRODUCTS CORPORATION			PERREIRA, MELISSA JEAN			
SUITE 225 14441 BEACH	BLVD	ART UNIT	PAPER NUMBER			
WESTMINSTER, CA 92683			1618			
			DATE MAILED: 06/16/2006			

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application	n No.	Applicant(s)				
Office Action Summary		10/619,70	9	NGUYEN ET AL.				
		Examiner		Art Unit				
		Melissa Pe	rreira	1618				
Period fo	The MAILING DATE of this communication ap or Reply	pears on the	cover sheet with the c	correspondence ad	ldress			
WHIC - Exte after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR REPL CHEVER IS LONGER, FROM THE MAILING D nsions of time may be available under the provisions of 37 CFR 1. SIX (6) MONTHS from the mailing date of this communication. O period for reply is specified above, the maximum statutory period are to reply within the set or extended period for reply will, by statut reply received by the Office later than three months after the mailine ed patent term adjustment. See 37 CFR 1.704(b).	DATE OF TH .136(a). In no eve I will apply and wil te, cause the appli	IS COMMUNICATION ont, however, may a reply be tin expire SIX (6) MONTHS from location to become ABANDONE	N. nely filed the mailing date of this c D (35 U.S.C. § 133).				
Status								
1)  🔀	Responsive to communication(s) filed on 14 J	July 2003.						
2a)□	· · · · · · · · · · · · · · · · · · ·	is action is no	on-final.					
3)	<del>'</del>							
٠,ڪ	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.							
Disposit	ion of Claims	•						
		n						
7)63	Claim(s) <u>1-53</u> is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.							
5)□	Claim(s) is/are allowed.							
-	is/are allowed. is/are rejected.							
	Claim(s) is/are objected to.							
-	Claim(s) 1-53 are subject to restriction and/or	election rea	uirement					
·	· · · —	cicciion req	an ement.					
	ion Papers							
•	The specification is objected to by the Examine		_					
10)	The drawing(s) filed on is/are: a) acc	•	-					
	Applicant may not request that any objection to the		-					
_	Replacement drawing sheet(s) including the correct	-	= : :	=				
11)	The oath or declaration is objected to by the E	xaminer. No	te the attached Office	Action or form P	ГО-152.			
Priority (	under 35 U.S.C. § 119							
-	Acknowledgment is made of a claim for foreign  All b) Some * c) None of:  Certified copies of the priority documen	its have beer	n received.					
	2. Certified copies of the priority documen		• •					
	3. Copies of the certified copies of the price	•		ed in this National	Stage			
	application from the International Burea	•	• • • •					
* 5	See the attached detailed Office action for a list	t of the certif	led copies not receive	ed.				
Attachmen	• •		<b></b> -	(DTO 440)				
	e of References Cited (PTO-892) te of Draftsperson's Patent Drawing Review (PTO-948)		4) Interview Summary Paper No(s)/Mail Da					
	nation Disclosure Statement(s) (PTO-1449 or PTO/SB/08	3)	5) Notice of Informal P		O-152)			
Paper No(s)/Mail Date 6)  Other:								

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## **DETAILED ACTION**

## Election/Restrictions

- 1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - Claims 1-14 are drawn to a method of identification and quantification of amine by synthesizing an amide internal standard, classified in class 424, subclass 1.81; class 514, subclass 563.
  - II. Claims 15-27 are drawn to a method of identification and quantification of amine by synthesizing a carbamate internal standard, classified in class 424, subclass 1.81.
  - III. Claims 28-40 are drawn to a method of identification and quantification of amine by synthesizing a urea internal standard, classified in class 424, subclass 1.81; class 514, subclass 588.
  - IV. Claims 41-53 are drawn to a method of identification and quantification of amine by synthesizing a thiourea internal standard, classified in class 424, subclass 1.81; class 514, subclass 580.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as products which share an alleged common utility of identification and quantification of amine but the common utility is not linked to a substantial structural feature. The products in this relationship are distinct if either or both of the following can be shown: (1) that the products encompass embodiments that are not required to perform the common utility or (2) that the products as claimed can be

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used to perform another utility. In this case, carbamate linkages are unstable and prone to dissociation at high temperatures releasing alcohol groups and isocyanate that can be very reactive (self react by dimerization, trimerization etc.) and lead to side products. The amide bond is less reactive due to resonance stabilization provided by the nitrogen heteroatom where the electrophilicity of the carbonyl group is reduced due to electron donation. The synthesis of carbamates can be achieved by other methods than that of the instant claims such as a Curtius rearrangement of a carboxylic azide and addition of the isocyanate intermediate to an alcohol.

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- 3. Inventions I and III are related as products which share an alleged common utility of identification and quantification of amine but the common utility is not linked to a substantial structural feature. The products in this relationship are distinct if either or both of the following can be shown: (1) that the products encompass embodiments that are not required to perform the common utility or (2) that the products as claimed can be used to perform another utility. In this case, urea is stable at room temperature but decompose upon heating and can form products including ammonia, oxides of nitrogen, cyanuric acid, carbon dioxide, etc. The amide bond is less reactive due to resonance stabilization provided by the nitrogen heteroatom where the electrophilicity of the carbonyl group is reduced due to electron donation. The synthesis of urea can be achieved by other methods than that of the instant claims such as the Wohler synthesis using potassium cyanate and ammonium chloride.
- 4. Inventions I and IV are related as products which share an alleged common utility of identification and quantification of amine but the common utility is not linked to a

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substantial structural feature. The products in this relationship are distinct if either or both of the following can be shown: (1) that the products encompass embodiments that are not required to perform the common utility or (2) that the products as claimed can be used to perform another utility. In this case, the thiourea bonds are difficult to perturb and can be synthesized by other methods than that of the instant claims such as the addition of a substituted cyanamide with LiAlHSH in 1N HCI.

- 5. Inventions II and III are related as products which share an alleged common utility of identification and quantification of amine but the common utility is not linked to a substantial structural feature. The products in this relationship are distinct if either or both of the following can be shown: (1) that the products encompass embodiments that are not required to perform the common utility or (2) that the products as claimed can be used to perform another utility. In this case, carbamate linkages are unstable and prone to dissociation at high temperatures releasing alcohol groups and isocyanate that can be very reactive (self react by dimerization, trimerization etc.) and lead to side products. Urea is stable at room temperature but decompose upon heating and can form products including ammonia, oxides of nitrogen, cyanuric acid, carbon dioxide, etc.
- 6. Inventions II and IV are related as products which share an alleged common utility of identification and quantification of amine but the common utility is not linked to a substantial structural feature. The products in this relationship are distinct if either or both of the following can be shown: (1) that the products encompass embodiments that are not required to perform the common utility or (2) that the products as claimed can be used to perform another utility. In this case, carbamate linkages are unstable and prone

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to dissociation at high temperatures releasing alcohol groups and isocyanate that can be very reactive (self react by dimerization, trimerization etc.) and lead to side products while the thiourea bonds are difficult to perturb.

- 7. Inventions III and IV are related as products which share an alleged common utility of identification and quantification of amine but the common utility is not linked to a substantial structural feature. The products in this relationship are distinct if either or both of the following can be shown: (1) that the products encompass embodiments that are not required to perform the common utility or (2) that the products as claimed can be used to perform another utility. In this case, Urea is stable at room temperature but decomposes upon heating and can form products including ammonia, oxides of nitrogen, cyanuric acid, carbon dioxide, etc. while the thiourea bonds are difficult to perturb.
- 8. Each invention contains different functional groups, reactivities and chemical properties and would require undue burden to the office.
- 9. Claims 1-53 are generic to the following disclosed patentably distinct species (and subspecies): comprising amides, carbamates, ureas and thioureas with primary or secondary amine having R<sub>1</sub> and R<sub>2</sub> are alkyl, aryl, heteroatom containing cyclic or non-cyclic groups as well as others listed in claims 1-53. The species are independent or distinct because they each contain different functional groups and chemical properties and would require undue burden to the office. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species and subspecies. Applicant is advised that a reply to this requirement must include an identification of the species that is elected

consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species.

MPEP § 809.02(a).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

## Conclusion

No claims are allowed at this time

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Perreira whose telephone number is 571-272-1354. The examiner can normally be reached on 9am-5pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Hartley can be reached on 571-272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MP June 5, 2006

> MICHAEL G. HARTLEY SUPERVISORY PATENT EXAMINER